

REMARKS

I. Introduction

In response to the Office Action dated December 7, 2006, Applicants have canceled claims 1 – 5 and rewritten these claims as new claims 6 – 10 in order to delineate the preamble and to separate each claim limitation, as requested by the Examiner. Care has been taken to avoid the introduction of new matter. In view of the foregoing amendments and the following remarks, Applicants respectfully submit that all pending claims are in condition for allowance.

II. Request for Substitute Specification

The Examiner has requested a substitute specification, asserting that the specification as filed contains numerous objections. In particular, the Examiner has objected to the last three pages of the specification, which the Examiner asserts contains a recitation of the claims. Upon reviewing the specification, we do not believe a substitute specification is necessary because the specification, as written, would be understandable to one of ordinary skill in the art. However, in order to expedite prosecution, Applicants have deleted those specific paragraphs objected to by the Examiner.

III. Claim Objections

Claims 1 – 5 have been objected to as containing various informalities. First, the Examiner asserts that claims 1 – 5 do not comport with proper U.S. practice because the claim limitations are not delineated from the preamble. Applicants have canceled claims 1 – 5 and rewritten these claims as new claims 6 – 10, wherein the preamble is delineated from the claim limitations. Accordingly, withdrawal of this objection is respectfully requested.

Regarding claim 5, the Examiner further asserts that this claim is in improper dependent form for failing to further limit the subject matter of a previous claim. Applicants respectfully

submit that claim 5 is a product-by-process claim and is in the proper format. The Examiner's attention is directed to MPEP § 2173.05(p) which describes the proper format of a product-by-process claim.

IV. Claim Rejections Under 35 U.S.C. § 101

Claims 1-5 have been rejected under 35 U.S.C. § 101 because the Examiner contends the claimed invention is directed to non-statutory subject matter. Applicants traverse these rejections for at least the following reasons.

First, the Examiner asserts that the claims recite the mere manipulation of data and do not produce a useful, concrete, and tangible result. Claims 6 – 10 have been written so as to more particularly indicate that the method is a computer-implemented method used to configure a simulation program that is executable by a computer processor. Because the simulation program is executable by a computer process, it provides a useful, concrete, and tangible result.

Second, the Examiner asserts that claim 5 represents a mixing of statutory classes and results in a statutory conflict. It appears that the Examiner has not recognized that claim 5 is a product-by-process claim, not a claim directed to a product and a process. Again, we refer the Examiner to MPEP § 2173.05(p), which describes the requirements and format of product-by-process claims.

V. Claim Rejections Under 35 U.S.C. § 112

Claims 1 – 5 have been rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out distinctly claim subject matter which applicant regards as the invention. Applicants traverse these rejections for at least the following reasons.

First, the Examiner assert that the phrase “inherit character” is vague and indefinite. Applicants respectfully submit that the concept of inheritance is well known in the computer

programming arts and that in light of the specification, one of ordinary skill in the art would clearly understand what is meant by the phrase “inherit character.”

Second, the Examiner alleges that the phrase “phenomenological model” renders the claims vague and indefinite. Applicants respectfully submit that this phrase is clearly related to the remaining claim elements because claim 1 recites classifying models which represent phenomena, and the phenomenological model is used to create a model of the classes based on the observed phenomena.

The Examiner also considers the phrase “defining an abstract class by extracting characteristics common to a plurality of similar parts ... if such parts exists” as rendering the claims vague and indefinite. Specifically, the Examiner asserts that it is unclear what types of characteristics are extracted from the components and what is extracted if the parts do not exist. Applicants respectfully submit that the claim clearly recites that characteristics common to a plurality of similar parts are extracted. There is no need to list specific characteristics in this claim. Furthermore, it is clear that nothing is extracted if the abstract class is not defined. The Examiners’ attention is directed to paragraph [0021] of the specification as published, which clearly supports this feature.

Next, the Examiner asserts that the phrase “necessary types of part” renders the claims vague and indefinite because it is unclear what constitutes a necessary part. Claims 6 – 12 have been drafted to recite “necessary types of parts to be distinguished” in order to more distinctly express the subject matter of the invention.

The Examiner also asserts that the phrase “creating a simulation program” renders the claims vague and indefinite because it is unclear how the simulation program is created. Clearly, this phrase simply refers to the process of assembling the program based on the defined classes.

As Applicants have addressed each claim objection under § 112, withdrawal of these rejections is respectfully requested.

VI. Claim Rejections Under 35 U.S.C. § 102

Claims 1-5 have been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Judge et al. "*A heat Exchanger Model for Mixtures and Pure Refrigerant Cycle Simulations*" hereafter referred to as Judge. Claims 1-5 have also been rejected under 35 U.S.C. § 102(b) as being anticipated by Karanikas et al., U.S. Patent Application 2006/0201098, hereafter referred to as Karanikas. While claims 1 – 5 have been canceled, Applicants respectfully submit neither Judge nor Karanikas, alone or in combination with each other, disclose or suggest every feature of newly added claims 6 – 12.

Judge is directed to a simulation program used with heat exchangers. However, unlike the pending claims, Judge does not disclose a method of actually configuring the simulation program. Rather, a description of a particular simulation program is provided. No description is provided by Judge of any of the recited claims elements which relate to configuring a simulation program.

Similarly, Karanikas is directed to a simulation program/method. Karanikas further discloses that the simulation program may be an object-oriented program and provides a general overview of how object-oriented programs work (*see*, paragraphs [0897] – [0898]). However, Karanikas does not disclose any of the claim elements which are directed to a method of configuring a simulation program.

If the Examiner continues to maintain these rejections, Applicants respectfully request that the Examiner particularly identify the elements in each of the cited references which the Examiner equates with each claim element in a new, non-final office action so that Applicants may respond to the Examiner's assertions.

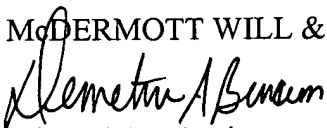
VII. Conclusion

Having fully responded to all matters raised in the Office Action, Applicants submit that all claims are in condition for allowance, an indication for which is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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